

Dam Sequence No 00250



Formal Action



Year:

1856



CHAPTER 508.

An Act to amend Chapter 330 of the Private and Local Laws of 1855.

The people of the State of Wisconsin, represented in Senate and Assembly do enact as follows:

Amendment.

SECTION 1. Section two of chapter 330 of the private and local laws of Wisconsin, passed by the legislature of Wisconsin in the year 1855, is hereby so amended as to authorize the company therein named to build their dam on section four (4), in town thirteen (13) north, range six (6) east.

Sec. 2. All acts and parts of acts conflicting with the provisions of this act, are hereby repealed.

Approved October 11, 1856.

CHAPTER 509.

An Act to authorize the Common Council of the city of Beloit to levy and collect road taxes.

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

Road tax.

SECTION 1. The common council of the city of Beloit shall have power, and are authorized at any regular or special meeting of the same, to levy and collect road taxes upon all persons and property in the said city, in the same manner and as fully as towns are now authorized to do.

Street commissioner.

Sec. 2. The common council may appoint one street commissioner for each ward in said city, who shall perform all the duties, and possess all the powers of overseers of highways in towns, and all sections or parts of sections of the charter of the city of Beloit, contravening in this act, are hereby repealed.

Approved Oct. 11, 1856.

CHAPTER 510.

An Act to amend the charter of the Madison, Fond du Lac & Michigan Railroad Company.

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

SECTION 1. The act of which this act is amendatory, is hereby amended, by striking out the words "sixth judicial circuit" wherever it occurs and insert instead thereof the words "ninth judicial circuit, or any justice of the supreme court."

Sec. 2. This act shall take effect and be in force from and after its passage.

Approved October 13, 1856.

CHAPTER 511.

An Act to authorize the erection and maintenance of a Mill Dam.

The People of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

SECTION 1. It shall be lawful for George W. Brower and John L. Brower, and their heirs and assigns, are hereby authorized to apply to the county judge of the county of Dodge for the appointment of three disinterested persons, as commissioners to examine, adjudicate and determine, to the necessity of authorizing, for the benefit and convenience of the public and for the public good, the erection and maintaining, or the keeping up and maintaining, a dam on the north west quarter of section thirty-five, in town thirteen, north of range thirteen east, in Dodge county, at or near the present location of their mill dam, and also to examine, adjudicate and determine the height that it is necessary that the said dam shall be erected and maintained, or kept up and maintained, for the benefit and convenience of the public, and for the public good. The said persons so appointed commissioners, shall, after having been duly sworn for that purpose, by any person

14.3

having legal authority to administer oaths, proceed to examine said premises for the purpose of adjudicating and determining, first, whether the necessity and convenience of the public, and the public good require the erection and maintaining, or the keeping up and maintaining a mill dam at the point aforesaid; if the said commissioners, or a majority of them, shall be of the opinion that the necessity and convenience of the public, and the public good, require the erection and maintaining, or the keeping up and maintaining a mill dam at the point aforesaid, then the said commissioners shall adjudicate and determine the height that the necessities and convenience of the public, and the public good require that the said dam should be erected and maintained, or kept up and maintained, and to report in writing, under their hands and seals, or the hands and seals of a majority of them, to the county judge aforesaid, their finding upon each and every of the said matters so submitted to them as herein provided, which said report shall be duly acknowledged by the said commissioners, or a majority of them, before the said county judge, or other person authorized to take the acknowledgement of deeds, and shall be recorded in the office of the register of deeds for Dodge county.

Report
If commissioners report in the affirmative they may erect dam.

SEC. 2. In case the said commissioners or a majority of them, in their report find that the necessity and convenience of the public and the public good, require the erection and maintaining, or the keeping up and maintaining a mill dam, at the point aforesaid, then it shall and may be lawful for the said Geo. W. Brower and John L. Brower, their heirs and assigns, to erect and maintain, or keep up and maintain a mill dam at the point aforesaid, on the north west quarter of section thirty-five (35) aforesaid, and the said George W. Brower and John L. Brower, their heirs and assigns, may and are hereby authorized at any time after the recording of said report of said commissioners, as above provided, to apply to the county judge of said county, to appoint three disinterested persons as commissioners to assess damages as herein provided, and upon such application the said county judge shall appoint three disinterested persons of the same county, to act as commissioners, whose duty it shall be to make an examination of all the lands overflowed or liable to be overflowed; or lands upon which the water shall be set back or liable to be set back, by reason of the erecting and maintaining or the keeping up and maintaining said mill dam, and make

an award in writing, in which they shall award to the owner or owners of any such overflowed land or lands upon which the water shall be set back or liable to be overflowed or set back, the amount of damages to which such owner or owners of said land or lands shall be entitled, by reason of the keeping up and maintaining or erecting and maintaining said mill dam aforesaid; said commissioners shall meet within sixty days from the time of their appointment (unless such time shall be extended by an order of the county judge for cause shown) to make their examination and award, by virtue of this act, and the owner or owners of said lands shall be notified to appear before them, at the time and place of such meeting, and shall be entitled to be heard before said commissioners, in regard to the amount of damages by them sustained, in consequence of the erecting and maintaining of said mill dam, or the keeping up and maintaining said mill dam; such notice shall at least six days before such meeting, be served personally, or by leaving a copy thereof at the residence of the owner or owners of said lands aforesaid; in case the owner or owners of said overflowed land or lands injured by the erecting and maintaining, or the keeping up and maintaining said dam, shall be non-residents of the said county, or in case the residence of any or either of them shall be unknown to the said Geo. W. Brower and John L. Brower, their heirs or assigns, then and in that case the commissioners last aforesaid shall cause a notice to be published in one of the public newspapers of said county, for four successive weeks previous to such meeting, which notice shall specify the time, place and object of such meeting.

Commissioners to assess damages by overflowing.

Award.

SEC. 3. The decision and award of said commissioners mentioned in the second section of this act, shall be final, unless appealed from as provided for in this act, and the said award, together with due proof of the service of the notice or notices upon the owner or owners of said lands, shall be filed in the office of the clerk of the circuit court for said county of Dodge, and shall be *prima facie* evidence of the regularity of said proceedings, and the said award shall be and remain a lien upon the lands of said John L. Brower and George W. Brower, their heirs and assigns, until the term of the circuit court of said county held next after the making of such report of damages, when upon motion made by any party interested therein, judgment may be entered up, and execution issued to

Award final.

the same effect, and in the same manner as judgments are entered and executions issued upon suits of a civil nature, commenced and tried in the said circuit court.

Appeal.

SEC. 4. Any person or persons considering himself or themselves aggrieved by the award of said commissioners, may appeal therefrom within ten days from the term of filing such award, to the circuit court of the county of Dodge, in the same manner as is provided by law, for appeals from the decisions of the estate of deceased persons.

Suits.

SEC. 5. No suit or proceeding at law or in equity shall be hereafter brought, prosecuted or further maintained, but all such suits shall abate absolutely, except as is provided for in this act, against the said George W. Brower and John L. Brower, or either of them, their heirs and assigns, for any injury or damages arising from the overflowing or setting back of water upon any lands by reason of the erecting and maintaining or keeping up and maintaining of said mill dam, after the said George W. Brower and John L. Brower, their heirs or assigns shall have applied to have commissioners appointed to assess damages, according to the provisions of this act.

Persons aggrieved—how to proceed.

SEC. 6. Any person or persons claiming to have been injured by the erecting and maintaining or keeping up and maintaining said mill dam, and whose damages shall not have been appraised in the manner herein provided for, may apply to the said county judge for the appointment of commissioners to appraise and assess his or their damages in the same manner and with like effect as the said George W. Brower and John L. Brower, their heirs and assigns as [are] herein authorized to do; *Provided*, The said George W. Brower and John L. Brower, their heirs and assigns shall have neglected or refused to have the damages of said person or persons appraised in the manner therein provided, for the space of six months next after the passage of this act; *And, provided further*, That such application shall be made within one year, next after the passage of this act; the expense of such assessment and proceedings shall be paid by the person or persons making such application in case no damages are awarded them.

Proviso.

Suits must be brought within one year.

SEC. 7. All actions, suits or proceedings either at law or in equity, for any claim or injury to the lands belonging to the state of Wisconsin, or to the lands of any person or persons by reason of the erecting and maintaining, or the keeping up and maintaining of such dam shall be brought

within one year next after the passage of this act, and not afterwards.

SEC. 8. This act shall be deemed a public act and shall take effect immediately after its passage and publication by the state printer. Public act.

Approved October 13, 1856.

CHAPTER 512.

An Act to legalize the official acts of Edwin Hart as Justice of the Peace in the county of Oconto.

The People of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

SECTION 1. All the official acts of Edwin Hart who was elected justice of the peace in the town of Oconto, in the county of Oconto, in the spring of 1855, are hereby legalized and made valid in law. Certain acts declared legal.

SEC. 2. This act shall take effect from and after its passage.

Approved October 13, 1856.

CHAPTER 513.

An Act to incorporate the "Milwaukee Printing and Publishing Association."

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

SECTION 1. That all such persons as shall become stockholders to the capital stock hereinafter mentioned, their successors and assigns, shall be, and are hereby created and made a body politic and corporate, by the name and style of the "Milwaukee Printing and Publishing Association," and by that name, shall be capable in law of suing and being sued, pleading and being impleaded, To incorporate Milwaukee printing association.

Dam Sequence No 250



Formal Action



Year: 1931



BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

IN THE MATTER OF THE APPLICATION OF THE
FOX LAKE COTTAGE OWNERS' ASSOCIATION, ET
AL, FOR AN ORDER ESTABLISHING THE MAXIMUM
AND MINIMUM LEVELS OF FOX LAKE, IN DODGE
COUNTY

WP-442

Book
RECEIVED

OCT 8 1931

Dept. of Natural Resources
S. D. Head

BY THE COMMISSION:

The application of the Fox Lake Cottage Owners' Association and others, requesting the Commission to establish the low and the high water levels for both Fox Lake and the mill pond above the Fox Lake mill, came on to be heard at Fox Lake, Wisconsin, on June 8, 1931, pursuant to due and statutory notice, and adjournment thereof at the office of the Commission at Madison on June 16, 1931.

The appearances were:

For the petitioners, Fox Lake Cottage Owners' Association, et al:
Ira S. Lorenz, Attorney, Milwaukee, Wisconsin
C. A. Markham, Attorney, Beaver Dam, Wisconsin

For the respondents:
Wesley J. Cochran
William Frank
August Frank
Oscar Frank

The heirs of Charles M. Cochran, deceased by
B. J. Husting, Attorney, Mayville, Wisconsin

The petition states that the dam is located in the northwest quarter of section 35, township 13 north, range 13 east, Dodge County, Wisconsin, that the shore lines of Fox Lake are highly developed for resort and cottage purposes, that a large part of the lake consists of marsh and weed beds which furnish feeding ground for fish and wild fowl, that the dam was originally erected under and pursuant to Chapter 511, Laws of 1856, that the level of Fox Lake has been below normal since the summer of 1930, and that as a result navigation has been greatly impaired.

It appears that the Fox Lake Dam is used to operate a feed mill and is located in Beaver Dam Creek in the northwest quarter of section 35, township 13 north, range 13 east at a point about 1 1/2 miles downstream from the point where the creek leaves Fox Lake. The dam has created a pond which extends upstream to the lake and at all ordinary stages of water the pond controls the level of Fox Lake.

During periods of ordinary stream flow, when the pond is nearly full, the levels of Fox Lake and the pond are practically the same, but when the lake is at a low stage, the level of the pond is usually lowered below the lake level by the operation of the mill.

There is a limestone monument near the west end of the dam, the top of which is at approximately elevation 89.50 ft. when referred to Public Service Commission bench mark 332A. This stone monument has been used for many years to mark the maximum level of water to be maintained in the mill pond. It is described as being about 70 feet west of the waste gates and standing about 2 feet above the ground with top dimensions of 8 inches by 12 inches.

Public Service Commission bench mark 332A is described as follows:

"Bench Mark #332A located 25' N.W. of the center of Mill Street, 93.5' E. of the E. corner of the masonry foundation of the mill and 132' S. of the S. corner of the cement block building belonging to the Fox Lake brewery. A bronze tablet marked 'Railroad Commission of Wisconsin' set in top of concrete post 4' long, top of post flush with ground surface. Elevation found 100.00'."

On June 26, 1931, the Commission established bench mark 332C near the lake, described as follows:

"Bench Mark #332C is a bronze tablet marked 'Railroad Commission of Wisconsin' set in top of concrete post flush with surface of the ground. It is located on a point

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northeast of outlet of Fox Lake, and is 125.0' south of the S.W. corner and 133.1' S. of the S.E. corner of Burr Oaks Lodge owned by Geo. Fisher. It is located 25.3 ft. south of a 20" diameter white oak tree and about 25 ft. N.E. of the bank at the shore of the lake. Elevation when referred to datum of bench mark 332A is 93.44 ft."

Other bench marks were established by the applicants on Indian Point near the outlet of the lake. These bench marks are described as follows:

Cross chiseled in S.E. corner of concrete well platform	104.81
Square chiseled on top of 2 foot diameter black granite boulder. Elevation	91.69
Top of prehistoric Indian monument. Elevation	99.68

During the present season the lake has become very low due to lack of rainfall and to the use of water by the mill. On June 6, 1931 the lake was at elevation 87.10 ft. On June 25 it was at elevation 87.01 ft. and on June 26 it was at elevation 86.96 ft.

The elevation of the pond at the dam on June 6, 1931 before the mill began operation was at elevation 86.98 ft., but as soon as the mill was started, the pond began to drop. At 4:00 P.M. June 25, 1931, the pond was at elevation 86.27 ft. or .64 feet below the level of the lake.

When the lake and pond are at the present low stage, navigation between the pond and the lake is impracticable for the larger boats because of the shallow water, and navigation in the lake is greatly impaired.

The amount of power which can be developed by the mill at such a low stage of water is also greatly reduced because of the low head. More power could be developed from the same amount of water if a higher head of water were maintained. The engineer witness for the respondent mill owner testified that in his opinion the level

of the pond should not be drawn lower than 2 feet below the maximum elevation of 89.50 feet. It is his opinion that auxiliary power should be used when necessary in order to maintain the pond within 2 feet of the maximum elevation.

The Commission finds that the maximum level of the pond above the Fox Lake dam is at elevation 89.50 ft. and that the maximum level of the main body of Fox Lake is slightly higher than elevation 89.50 ft. because of the natural slope of the water surface of the stream from Fox Lake to the dam during periods of high stream flow. If the stream is maintained in the same condition with respect to flood capacity as has existed in the past, the level of Fox Lake will not exceed its maximum when the pond at the dam is maintained at or below elevation 89.50 ft.

The Commission further finds that the minimum level of the pond at the Fox Lake dam should be fixed at elevation 87.50 ft. and that the minimum level of the main body of Fox Lake should be fixed at elevation 88.00 ft.

The above minimum elevations will allow the level of water at the dam to be lowered .50 feet below the level of the lake during the ordinary operation of the mill when the lake is drawn nearly to its minimum elevation.

If at any time the lake should be lowered from any cause to or below its minimum elevation, the discharge of water at the dam should be suspended until such time as the lake is again above its minimum elevation.

The same rule should be observed with respect to the minimum elevation of the pond at the dam. Namely, no water should be discharged when the pond is at or below its minimum elevation.

IT IS THEREFORE ORDERED that the Fox Lake Dam be so operated that the water in the pond at the dam shall not exceed elevation

89.50 ft. and shall not be drawn lower than elevation 87.50 ft.

IT IS FURTHER ORDERED that the Fox Lake Dam be so operated that the water in the main body of Fox Lake shall not be drawn lower than elevation 88.00 ft.

Dated at Madison, Wisconsin, this 13th day of August,
1931.

PUBLIC SERVICE COMMISSION OF WISCONSIN

W. W. Wronshagen
Chairman

Paul E. Filenthal
Commissioner

W. M. J. J. J. J.
Commissioner

Attest:

Estelle R. Rowe
Asst. Secretary

Dam Sequence No 250



Formal Action



Year: 1937



Of the Commission Staff:

K. C. MacLeish
Engineer

The letter of the city of Fox Lake transmitting the petition to the commission states that the petition has the support of the community of Fox Lake, the Fox Lake Cottage Owners Association, the city council of Fox Lake, and the town board of the town of Fox Lake.

At the hearing Harrison M. Phelps, chairman of the town of Fox Lake, moved to amend the petition to include the town of Fox Lake as a party to the petition. The motion was granted.

The dam is located in the city of Fox Lake, but Fox Lake and the flowage controlled by the dam extend into the town of Fox Lake. The dam and 5 acres of land to be developed for park, fish hatchery, and fish rearing pond purposes are owned jointly by the city of Fox Lake and the town of Fox Lake.

The dam is located in Beaver Dam Creek in section 35, township 13 north, range 13 east, about $1\frac{1}{2}$ miles downstream from the lake outlet. The drainage area above the dam is 52 square miles. There is no dam in the creek upstream from the dam. The nearest dam downstream is the Beaver Lake Dam in the city of Beaver Dam which controls the level of Beaver Dam Lake. The drainage area above the Beaver Lake Dam is 139 square miles, or about 2.7 times as great as the drainage area above the Fox Lake Dam.

The Fox Lake Dam ^{*} is a masonry abutment structure lined with concrete, having two stop-log gate openings each approximately 6.0 feet wide, the sills of which are at elevation 82.72 feet. Dikes extend from each end of the dam to high ground. The left dike is at approximate elevation 91.75 feet with a low point at about elevation 90.64 feet. At the left end of the left dike there is an old flume which formerly led the water to the mill. It contains two gates approximately 5.2 feet wide. The flume has

been stopped by a concrete bulkhead wall, the top elevation of which is at 88.06 feet.

On August 13, 1931 while the dam was held in private ownership and used to develop power for milling purposes, the commission entered an order in docket WP-442 fixing the minimum and maximum pond levels above the Fox Lake Dam and for Fox Lake as follows:

	<u>Dam</u>	<u>Lake</u>
Minimum	87.50 feet	88.00 feet
Maximum	89.50 feet	89.50 feet plus

The elevation in said order and in the instant proceeding concerning the Fox Lake Dam refer to the datum of Public Service Commission bench mark 332A described as follows:

Bench mark 332A is located 25 feet northwest of the center of Mill Street, 93.5 feet east of the east corner of the masonry foundation of the mill, and 132 feet south of the south corner of the cement-block building belonging to the Fox Lake Brewery. It consists of a bronze tablet marked Railroad Commission of Wisconsin set in top of concrete post 4 feet long, top of post flush with ground surface. Elevation 100.00 feet.

The changes in the maximum and minimum levels requested by the petition herein are as follows:

	<u>Dam</u>	<u>Lake</u>
Minimum	89.00 feet	89.00 feet plus
Normal	89.75 feet	89.75 feet plus
Maximum	90.50 feet	91.00 feet (during floods)

The probable gradient during floods from Fox Lake to the dam is about 6 inches or more, due to the natural water gradient over the $\frac{1}{2}$ -mile reach of the stream, and the head loss through the highway bridge near the lake outlet. The discharge of the dam under the proposed levels is as follows:

	<u>Discharge in Cubic Feet per Second</u>		
	<u>Dam</u>	<u>Flume</u>	<u>Total</u>
Normal (water at 89.75 feet)	650.	83.5	733.5
Maximum (water at 90.50 feet)	760.	118.0	878.0

When the water at the dam is at maximum elevation of 90.50 feet, it will be .14 foot below the low point of the dike and create an unsafe condition. In view of the order which follows the dike must be raised to elevation 93.75 feet to make it safe.

Fox Lake contains two bodies of water, the larger one having a depth of from 12 to 15 feet while the smaller lake, connected by a channel to the larger lake, has an average depth of 5 feet. The surface area of Fox Lake covers about 2,400 acres. The lake is partially surrounded by an extensive marsh of about 3,500 acres in the towns of Fox Lake and Trenton, Dodge County. The marshes consist of clay and peat. According to witness Harrison M. Phelps, when the water is held at 89.50 feet at the dam and raises to elevation 91.00 feet in the lake, approximately 800 or 900 acres of low areas in the 3,500 acres of marsh land will be flooded. The water from most of these areas will drain away when the water recedes to elevation 89.75 feet. However, all of the marsh will be well soaked. Mr. Phelps further testified that some of the surrounding farm land is tile-drained, but will not be affected by a rise of the lake to elevation 91.00 feet. In general the marshes have a gradual slope toward the lake.

Evaporation and transpiration in Fox Lake will not be materially increased when the water is held at elevation 89.75 feet, or 3 inches above the present maximum normal operating level. Any increase in evaporation and transpiration will no doubt be offset by the additional ground storage of water with a higher lake level which will seep out and find its way into and benefit Beaver Dam Lake.

In the spring of 1939 Fox Lake was approximately 5 inches above elevation 89.50 feet, the present maximum level. From May to the date of the hearing the flow was completely shut off to prevent too great a lowering of the water in Fox Lake. The rapids below the dam above Beaver Dam Lake were practically dry. It was

customary to shut off the water in order to prevent Fox Lake from falling to an excessively low stage.

A higher water level for Fox Lake as requested by the petitioners will greatly improve Fox Lake for fishing and recreational purposes, and so far as appears from the record such levels will not adversely affect public rights in navigable water or adversely affect lands or other property of riparians or other persons. Since the drainage area tributary to Beaver Dam Creek above the Fox Lake Dam is 52 square miles, or ⁵²₁₃₉ of the drainage area above the Beaver Dam Lake, Fox Lake should contribute its part of the release required into the stream below the dam at the outlet of Beaver Dam Lake, as ordered in docket 2-WP-195. This order provides, among other things, as follows:

The minimum level of water in the pond immediately above the dam for power purposes shall be elevation 86.50 feet. If the pond elevation drops below 86.50 feet and so long as it continues below that elevation there shall be released through the dam a maximum flow of 10 second feet until the pond level shall have dropped to elevation 86.00 feet. So long as the pond elevation continues at or below elevation 86.00 feet, there shall be released a maximum of 5 second feet until the pond level shall have dropped to elevation 85.30 feet when all discharge of water through the dam shall cease until the pond level is again at or above elevation 85.30 feet.

The elevations mentioned in the foregoing order refer to Public Service Commission bench mark No. 35A described as follows:

Bench mark 35A consists of a bronze tablet marked Railroad Commission of Wisconsin, set in a concrete post about 5 feet in length, the top of which is slightly below the surface of the ground and located one foot inside of the cement sidewalk and 115 feet upstream from the end of the boiler house of the Paramount Knitting Mills and 70 feet upstream from the head gates in the flume leading to the wheels. The top of the bench mark is given an assumed elevation of 100.00 feet.

The order which follows shall be experimental and shall stand until modified or repealed by the commission.

Order

IT IS THEREFORE ORDERED:

1. That the petitioners, city of Fox Lake and town of Fox Lake, are authorized and required to operate the Fox Lake Dam according to the following schedule until the further order of the commission.

2. That elevation 90.50 feet shall be maintained above the Fox Lake Dam during all excessive run-off periods, the water to be drawn below this elevation as soon as practicable after each freshet to elevation 89.75 feet.

3. That from elevation 89.75 feet to elevation 89.25 feet the dam shall be so operated as to pass $\frac{52}{139}$ of the total flow required to be passed at Beaver Dam, or 3.75 c.f.s. unless the Beaver Dam Lake is above its first minimum elevation of 86.50 feet. In such case the level of 89.75 feet may be maintained.

4. That as long as the water level above the Fox Lake Dam remains between 89.25 feet and elevation 88.75 feet, the dam shall be so operated as to pass $\frac{52}{139}$ of the total flow required to be passed from Beaver Dam Lake, or 1.87 c.f.s. unless Beaver Dam Lake is above the second minimum level of elevation 86.0 feet. In such case the level of Fox Lake may remain as near elevation 89.25 feet as possible.

5. That no water is required to be passed at the Fox Lake Dam except to supply water to the proposed fish hatchery or to sustain fish life below the dam when the water drops below 88.75 feet above the dam.

6. That the dam owners, city of Fox Lake and town of Fox Lake, keep informed at all times of the levels and the operation of the dam at the outlet of Beaver Dam Lake.

7. That the increase in levels herein ordered will require a maximum freeboard of 3.25 feet above the maximum water elevation of 90.50 feet, or the addition of 2 feet of material to

the dike and the strengthening of the spillway structures and the flume structures with its dike.

8. That plans for said additions shall be filed with the commission for its approval, and that until such approval by the commission and the completion of the work according to the approved plans no water shall be raised higher than elevation 89.50 feet.

Jurisdiction is retained until January 1, 1941 to modify the foregoing order with or without further hearing as the commission may deem advisable.

Dated at Madison, Wisconsin, this 29th day of December 1937.

PUBLIC SERVICE COMMISSION OF WISCONSIN

R. A. Peterson
Chairman

Robert A. Rippe
Commissioner

W. F. Whitney
Commissioner

Dam Sequence No 250



Formal Action



Year: 1944



BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

In the Matter of the Petition of
the Fox Lake Cottage Owners'
Association for Relief from Condi-
tions Involving Operation of Dam at
Outlet of Fox Lake, Dodge County,
Wisconsin

2-WP-615

OPINION AND ORDER

The petitioners herein request that the Commission by order establish a single water level for Fox Lake which would be maintained, by the operation of the Fox Lake Dam, for the summer months, but lowered 6 inches in the winter to prevent or minimize damage by the expansion of the ice.

Hearing: At Fox Lake on August 28, 1944 before
Examiner Adolph Kanneberg.

Appearances:

Fox Lake Cottage Owners' Association by

Ira S. Lorenz, attorney
Milwaukee

Conservation Club of Fox Lake by

George A. Hartman, attorney
Juneau

City of Fox Lake by

E. W. Hooker, city attorney
Fox Lake

In their own behalf:

Griff Jones
Beaver Dam

Harry Phelps
Fox Lake

Of the Commission Staff:

W. A. Muegge
Engineering department

Briefs were filed by Ira S. Lorenz on behalf of the petitioners, and by George A. Hartman on behalf of the Conservation Club of Fox Lake.

The instant proceeding is the third formal case to come before the Commission since 1931 involving the problem of what constitutes the normal or, perhaps more accurately speaking, the most reasonable water level or levels to be maintained in Fox Lake, Dodge County, and the coordinate problem of how the dam in the outlet stream of Fox Lake, which controls the water level of Fox Lake, shall be operated to maintain the water levels found to be reasonable by the Commission.

It is unnecessary to reiterate the facts found by the Commission in the former proceedings.

Before the construction of the dam in the outlet stream, the body of water known as Fox Lake was largely surrounded by marsh areas. The dam was constructed for milling purposes pursuant to Chapter 511, Laws of 1856, at a point about 1-1/2 miles below the lake outlet. The dam deepened and greatly enlarged the original body of water. Extensive marshlands still lie adjacent to the lake, particularly to the north and to the south. Farm lands embody parts of such marsh areas or include other low lying lands surrounding the lake.

The interests of many groups of persons will be affected by any order which the Commission may make concerning the water levels to be maintained in Fox Lake. The owners of marshland which is too dry for muskrat farming desire a higher water level. Farmers with low lying land which is too wet for successful general farming desire a low water level. The angler and the vacationist generally desire a higher water level. The city of Fox Lake likewise favors a higher water level in

order to provide a sufficient depth of water in the channel between the lake and the dam. A deeper channel would discourage weed growths, make boating easier, and perhaps prevent noisome conditions in the river sometimes occasioned by the decay of vegetation in the river channel.

The cottagers on Fox Lake desire as constant a lake level during the summer as may reasonably be maintained by a careful operation of the dam, and a somewhat lower level during the winter to prevent damage by the expansion of the ice.

Anglers and vacationists resorting to Beaver Dam Lake, which receives the outflow from Fox Lake, also desire a higher water level in the spring of the year in order that there may be water available in Fox Lake for release into Beaver Dam Lake when the latter is at a low stage.

The Fox Lake Dam was constructed to develop power for the operation of a grist mill. The normal flow of the stream was insufficient to produce the power required by the mill. It was necessary and likewise reasonable to impound water behind the dam and in Fox Lake to be released when required for milling purposes.

While the dam was being used for power, the water above the dam fluctuated approximately from a maximum level of 89.50 feet to a minimum of approximately 87.50 feet, a variation of about 2 feet.

All elevations herein are referred to datum of Public Service Commission bench marks 332-A and 332-C described as follows:

"Bench mark No. 332-A located 25' N.W. of the center of Mill Street 93.5' E. of the E. corner of the masonry foundation of the mill and 132' S. of the S. corner of the cement block building belonging to the Fox Lake brewery. A bronze tablet marked 'Railroad Commission of Wisconsin' set in top of concrete post 4' long, top of post flush with ground surface. Elevation found 100.00'. It was further described as being 5.0' southwest of telephone pole and 27.0' west of center of road.

"Bench mark No. 332-C was established in accordance with authority granted by Chapter 31.02 of the Wisconsin Statutes, and is a bronze tablet marked "Railroad Commission of Wisconsin," set in top of concrete post flush with surface of the ground. It is located on a point N.E. of outlet of Fox Lake, and is 125.0 ft. south of the S.W. corner and 133.1 ft. south of the S.E. corner of Burr Oaks Lodge owned by Geo. Fisher. It is located 25.3 ft. south of a 20" diameter white oak tree and about 25 ft. N.E. of the bank at the shore of the lake. Elevation when referred to datum of bench mark 332-A is 93.44 ft."

In the decision in WP-442 (1 P.S.C.W. 124), the first proceeding before the Commission involving Fox Lake, the petitioners alleged that the miller in the operation of the mill drew the water in Fox Lake to an unreasonably low stage. The Commission after due public hearing came to the same conclusion. In its order, it provided that the Fox Lake Dam be so operated that the water in the pond at the dam shall not exceed elevation 89.50 feet and shall not be drawn lower than elevation 87.50 feet, and that auxiliary power be used when necessary to maintain the pond within 2 feet of the established elevation.

The order further provided that the dam be so operated that the water in the main body of Fox Lake shall not be drawn lower than elevation 88.0 feet.

The Commission also found that the maximum level of water in the main body of Fox Lake is slightly higher than elevation 89.50 feet because of the natural slope of the water surface in the stream from Fox Lake to the dam during periods of high stream flow.

The second proceeding to come before the Commission was upon the petition of the city of Fox Lake, the town of Fox Lake, and others, in 1939. It is docketed as 2-WP-468. (21 P.S.C.W. 883)

The petitioners requested an order establishing a normal or uniform level of 89.75 feet and a maximum level of 90.5 feet at the dam, the water to be kept at elevation 89.75 feet in Fox

Lake at all times except during floods; after flood periods the water level to be gradually reduced to that elevation.

At the time of the 1939 proceeding, the dam was no longer being used to develop power. The dam had been acquired by the city of Fox Lake and the town of Fox Lake in joint ownership for the sole purpose of maintaining a reasonable water level above the dam and in Fox Lake.

After the dam was no longer used for the development of power, the reasonableness of operating the dam between a maximum and minimum water level vanished. Thereafter all interests in Fox Lake demanded that the water level in the lake be maintained at as constant a level as may be obtained by the operation of the flood gates in the dam except that the water level might reasonably be lowered during the winter months to prevent damage by ice pressure.

On December 29, 1939 the Commission made the following order in docket 2-WP-468:

"IT IS THEREFORE ORDERED:

"1. That the petitioners, city of Fox Lake and town of Fox Lake, are authorized and required to operate the Fox Lake Dam according to the following schedule until the further order of the Commission.

"2. That elevation 90.50 feet shall be maintained above the Fox Lake Dam during all excessive run-off periods, the water to be drawn below this elevation as soon as practicable after each freshet to elevation 89.75 feet.

"3. That from elevation 89.75 feet to elevation 89.25 feet the dam shall be so operated as to pass $\frac{52}{139}$ of the total flow required to be passed at Beaver Dam, or 3.75 c.f.s. unless the Beaver Dam Lake is above its first minimum elevation of 86.50 feet. In such case the level of 89.75 feet may be maintained.

"4. That as long as the water level above the Fox Lake Dam remains between 89.25 feet and elevation 88.75 feet, the dam shall be so operated as to pass $\frac{52}{139}$ of the total flow required to be passed from the Beaver Dam Lake, or 1.87 c.f.s. unless Beaver Dam Lake is above the second minimum level of elevation 86.0 feet. In such case the level of Fox Lake may remain as near elevation 89.25 feet as possible.

"5. That no water is required to be passed at the Fox Lake Dam except to supply water to the proposed fish hatchery or to sustain fish life below the dam when the water drops below 88.75 feet above the dam.

"6. That the dam owners, city of Fox Lake and town of Fox Lake, keep informed at all times of the levels and the operation of the dam at the outlet of Beaver Dam Lake.

"7. That the increase in levels herein ordered will require a maximum freeboard of 3.25 feet above the maximum water elevation of 90.50 feet, or the addition of 2 feet of material to the dike and the strengthening of the spillway structures and the flume structures with its dike.

"8. That plans for said additions shall be filed with the commission for its approval, and that until such approval by the commission and the completion of the work according to the approved plans no water shall be raised higher than elevation 89.50 feet.

"Jurisdiction is retained until January 1, 1941 to modify the foregoing order with or without further hearing as the commission may deem advisable."

The petitioners, the city of Fox Lake and the town of Fox Lake, failed to file plans with the Commission as required under paragraph 8 of the foregoing order and because of such failure were not authorized to hold the water at the dam at elevation 90.50 feet. It also appears that the dam was not operated according to the schedule provided in the order. The schedule appears to have been somewhat too complicated to be followed by the operators of the dam.

One of the causes for dissatisfaction in water levels heretofore maintained was that the order of the Commission in the former proceedings required that the water level in Fox Lake be regulated by holding the water at certain elevations above the dam. The dam is located 1 1/2 miles below the lake. The stream is shallow and during the summer is obstructed by a dense growth of weeds and aquatic plants which greatly decrease the flood capacity of the channel. Designated stages of water at the dam with like flows will not always cause the same water level in Fox Lake. A more certain method of maintaining a

constant level in Fox Lake is to operate the dam with reference to the water stages in the lake.

During the flood periods before the grist mill was abandoned, the maximum elevation for Fox Lake fixed by the Commission at "slightly above 89.50 feet" was probably seldom reached because the operation of the water wheels usually kept the water level in the lake below the normal elevation.

The evidence indicates that an elevation of 89.75 feet at the lake will not damage farm lands, provided such elevation is maintained as closely as possible by careful operation of the dam. That elevation should also be reasonable to the cottagers, provided the water level is reduced during the winter months to prevent ice damage.

It does not seem to be reasonable to increase the water level in the lake for the purpose of making additional marshlands suitable for muskrat farming. Neither is it reasonable that a higher pond level be maintained in order that water may be released from Fox Lake into Beaver Dam Lake when the latter is at a low stage of water.

The interests of the various groups are more or less in conflict. Under such circumstances it is essential that the Commission, in establishing a water level at which Fox Lake shall be maintained, consider the legal rights of the persons who will be affected by such water level.

It was held in The Cedar Lake Hotel Co. v. The Cedar Creek Hydraulic Co., et al., 79 Wis. 297, that a riparian proprietor on a navigable lake has the right to have the water maintained at its natural level.

In Runyard v. Oetting Bros. Ice Co., 142 Wis. 471, the court said: "Property owners upon a navigable body of water have the right to have the natural level maintained and also to have

the assistance of a court of equity if it be necessary to accomplish that end."

The right to have the water maintained at its natural elevation is a property right under the protection of the Constitution and it cannot be taken or its value lessened or impaired even for public use without compensation or due process of law, and it cannot be taken at all for anyone's private use. Prieve v. Wis. State Land & Improvement Co., 93 Wis. 534.

From a careful consideration of the evidence, it clearly appears that the water level in Fox Lake prior to the decision in WP-442 was not normally held above elevation 89.75 feet, nor was the water since that date normally held at a higher level than elevation 89.75 feet. We conclude therefore that the normal elevation of Fox Lake is at elevation 89.75 feet.

It also clearly appears that in order to prevent damage by the expansion of the ice the water level in Fox Lake should be reduced 6 inches below the normal elevation for the winter months.

Finding

THE COMMISSION FINDS:

That the normal water level of Fox Lake is at elevation 89.75 feet, Public Service Commission datum.

Order

IT IS THEREFORE ORDERED:

1. That the owners of the Fox Lake Dam, the city of Fox Lake and the town of Fox Lake, so operate the dam as to maintain the water level in Fox Lake at elevation 89.75 feet, Public Service Commission datum, as nearly as this may be accomplished by the careful operation of the dam.
2. That the owners of the dam reduce the water level in Fox Lake gradually to elevation 89.25 feet during the period

from October 15 to November 10 each year, and restore the lake to elevation 89.75 feet as soon as the Spring break-up is completed, but in no event at a later date than April 30. Care shall be taken during the raising of the water so that the flow below the dam is not decreased too greatly.

3. That the owners of the dam establish a staff gage in Fox Lake at a point readily accessible to the public, the gage to be graduated in feet and tenths of feet indicating elevations from 88.00 feet to 91.00 feet when referred to Public Service Commission bench marks hereinbefore described.

4. That the owners of the Fox Lake Dam establish a similar staff gage in the pond above the dam.

5. That the owners of the dam read the staff gages once each week, except during periods of heavy floods, in which event daily readings shall be taken, and report the readings to the Public Service Commission at the end of each calendar month.

6. That in the operation of the dam during periods of high flow no more water be released through the dam than the inflow into Fox Lake so far as this may be reasonably accomplished by the careful operation of the floodgates.

7. That any previous orders of the Commission conflicting with the foregoing orders are rescinded.

Dated at Madison, Wisconsin this 11th day of October 1944.

PUBLIC SERVICE COMMISSION OF WISCONSIN

R. W. P. P.
Chairman

W. H. Whitney
Commissioner

Gym H. Kelley
Commissioner

Dam Sequence No 250



Formal Action



Year: 1946



BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

In the Matter of the Petition of)
the Fox Lake Cottage Owners' Associ-)
ation for Relief from Conditions) 2-WP-666
Involving Operation of Dam at Outlet)
of Fox Lake, Dodge County)

DECISION AND ORDER

The petition of the Fox Lake Cottage Owners' Association in substance alleges that the city of Fox Lake and the town of Fox Lake are co-owners of the so-called Fox Lake Dam in the outlet stream of Fox Lake which controls the water level of Fox Lake, Dodge County; that in a proceeding before the Public Service Commission designated docket 2-WP-615, in which the petitioner and the respondents, the city of Fox Lake and the town of Fox Lake, appeared as parties, the Commission, under date of October 11, 1944, entered its decision and made an order which provides:

1. That the owners of the Fox Lake Dam, the city of Fox Lake and the town of Fox Lake, so operate the dam as to maintain the water level in Fox Lake at elevation 89.75 feet, Public Service Commission datum, as nearly as this may be accomplished by the careful operation of the dam.

2. That the owners of the dam reduce the water level in Fox Lake gradually to elevation 89.25 feet during the period from October 15 to November 10 each year, and restore the lake to elevation 89.75 feet as soon as the spring break-up is completed, but in no event at a later date than April 30. Care shall be taken during the raising of the water so that the flow below the dam is not decreased too greatly.

3. That the owners of the dam establish a staff gage in Fox Lake at a point readily accessible to the public, the gage to be graduated in feet and tenths of feet indicating elevations from 88.00 feet to 91.00 feet when referred to Public Service Commission bench marks hereinbefore described.

4. That the owners of the Fox Lake Dam establish a similar staff gage in the pond above the dam.

5. That the owners of the dam read the staff gages once each week, except during periods of heavy floods, in which event daily readings shall be taken, and report the readings to the Public Service Commission at the end of each calendar month.

6. That in the operation of the dam during periods of high flow no more water be released through the dam than the inflow into Fox Lake so far as this may be reasonably accomplished by the careful operation of the floodgates.

7. That any previous orders of the Commission conflicting with the foregoing orders are rescinded.

The petition further alleges that the owners of the dam failed to maintain the water level in Fox Lake as required by said order, which failure resulted in damage to land and other property.

Hearing at Fox Lake on June 25, 1946 before Commissioner W. F. Whitney.

Appearances:

Fox Lake Cottage Owners' Association by

Otto Jancoen, president
Fox Lake

Ira S. Lorenz, attorney
Milwaukee

City of Fox Lake and Town of Fox Lake by

E. W. Hooker, attorney
Fox Lake

Beaver Dam Conservationists
Beaver Dam Fishermen's Club,
Griffen Jones, president
Warren Clark, property owner, all by

J. L. Skupniewitz, attorney
Beaver Dam

Conservation Commission of Wisconsin by

Barnie Wanie
Fisheries division

Of the Commission Staff

Adolph Kanneberg, counsel

At the conclusion of the hearing an open discussion was had by and between the petitioner, Fox Lake Cottage Owners' Association, by its attorney, Ira S. Lorenz; the city of Fox Lake and the town of Fox Lake, by their attorney, E. W. Hooker; Mr. Steinkellner, a farmer, and others, which resulted in the agreement between the parties in controversy as follows:

That paragraph numbered 2 in the decision of the Commission in 2-WP-615, as above set forth, be amended to read as follows:

2. That the owners of the dam reduce the water level in Fox Lake gradually to level 89.25 feet during the period from October 15 to November 10 each year, and keep it at that elevation until after the spring breakup the following year is completed, but in no event later than April 30, after which the lake is to be restored to 89.75 feet. Care shall be taken during the raising of the water so that the flow below the dam is not decreased too greatly.

That Harrison M. Phelps, chairman of the town of Fox Lake, be appointed the agent of the city of Fox Lake and the town of Fox Lake to operate the dam pursuant to the order of the Commission for a period of 1 year ending July 1, 1947.

Because of the agreement between the parties hereinbefore set forth, the Commission deems it unnecessary to consider or to pass upon any issues raised by the complaint and the answer of the owners of the dam.

The Commission has no objection to the appointment of Mr. Phelps as the agent of the owners of the dam to operate the said dam but points out that the primary responsibility for such operation in accordance with the order of the Commission rests upon the owners thereof.

It is considered, upon the evidence herein, that the operation of the Fox Lake Dam, in accordance with the

Commission's order of October 11, 1944, as modified by such stipulation, will be consistent with all public rights involved. An order will therefore be entered to implement such stipulation. However, jurisdiction in this proceeding will be retained until June 25, 1947 for the purpose of making such further order as experience thereunder may indicate to be advisable.

Finding

THE COMMISSION FINDS:

That the operation of the so-called Fox Lake Dam, in accordance with the Commission's order of October 11, 1944, as modified by the stipulation entered into between the parties hereinbefore set forth, is in the public interest.

Order

IT IS THEREFORE ORDERED:

That paragraph numbered 2 in the decision of the Commission in docket 2-WF-615 be and the same is hereby amended to read as follows:

2. That the owners of the dam reduce the water level in Fox Lake gradually to level 89.25 feet during the period from October 15 to November 10 each year, and keep it at that elevation until after the spring breakup the following year is completed, but in no event later than April 30, after which the lake is to be restored to 89.75 feet. Care shall be taken during the raising of the water so that the flow below the dam is not decreased too greatly.

IT IS FURTHER ORDERED:

That the Commission retain jurisdiction of the proceedings herein until June 25, 1947 for the purpose of making such further order as may be necessary to carry out the order

of the Commission heretofore made and as herein modified
with reference to the operation of the dam.

Dated at Madison, Wisconsin, this 5th day of
October 1946.

PUBLIC SERVICE COMMISSION OF WISCONSIN

Anna H. Gabley
Commissioner

W F Whitney
Commissioner

Samuel Bryan
Commissioner

Dam Sequence No 250



Formal Action



Year: 1966



BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Joint Application of the City and Town }
of Fox Lake, Dodge County, for the }
Holding of Fox Lake at a Lowered Level } 2-WP-2271
Temporarily to Effect Chemical Treat- }
ment for Management of Rough Fish }

FINDINGS OF FACT AND ORDER

The city of Fox Lake and the town of Fox Lake on November 4, 1965, filed their joint application with the Commission for authority to operate the Fox Lake Dam to lower the impoundment up to 3 feet and to hold the impoundment at the lowered level for a period of time necessary for chemical treatment. Drawdown authorized.

Pursuant to due notice, hearing was held on December 3, 1965 at Fox Lake before Examiner James Wolter.

Appearances:

Town of Fox Lake by

Cliff Wackett, chairman
Randolph

City of Fox Lake by

Herman D. Schacht, city attorney
Fox Lake and

H. J. Kreutzmann, mayor
Fox Lake

Interveners in Support:

Wisconsin Conservation Department by

Lee T. Kernan, district fish manager
Horicon

Sanitary District No. 1 of Township of Fox Lake by

Roman Bentz, chairman
Fox Lake

Appearances: (continued)

Interveners in Support: (continued)

Beaver Dam Lake Fisherman's Club, by

John Schoenfeld, president
Beaver Dam

Fox Lake Kiwanis Club, by

Orville F. Kratz
Fox Lake

Fox Lake Fisherman's Club, by

John Reff, director
Fox Lake

Fox Lake Property Owners Association, by

Norbert Paulsen, president
Fox Lake

Fox Lake Chamber of Commerce, by

Carl H. Porter, executive secretary
Fox Lake

As Interest May Appear:

18th District Constituents, by

Walter G. Hollander, state senator
Rosendale

Of the Commission Staff:

W. H. Cartwright, engineering department

Findings of Fact

THE COMMISSION FINDS:

1. The Fox Lake Dam, owned by the city of Fox Lake and the town of Fox Lake, is operated to hold Fox Lake water levels for real estate development thereon and for recreational use. The dam was initially constructed for milling purposes and was so operated until about 1935.

2. Fox Lake is noted for its game fishing and wild fowl habitat. Fish kills in 1958 and 1959 depleted the game

fish and provided conditions for takeover by rough fish. The only way that the rough fish population can be removed is by chemical treatment.

3. For chemical treatment the impoundment will have to be drawn down 3 feet to expose the shallow areas and to provide storage for inflow during the treatment period when outflow cannot be passed.

4. Fox Lake has a surface area of 2,100 acres. Considering reduction of lake area by the drawdown, inflow from the drainage area, and adjacent ground water table, some 6,400 acre feet of water will have to be discharged. With the discharge at the rate of approximately 100 cubic feet a second, it will take more than 1 month to lower the pool 3 feet.

5. Water discharged from Fox Lake runs into Beaver Dam Lake. The discharge of water by the dam located at the outlet to Beaver Dam Lake is limited by the location of downstream buildings and the city of Beaver Dam sewage disposal plant.

6. At the time of hearing, the Fox Lake Dam was being operated to pass more than 100 cubic feet a second caused by runoff from excessive fall rains. With winter conditions, the runoff will decrease and consequent discharge will taper off to low flow if the water level of Fox Lake is maintained.

7. To have the impoundment lowered for late spring or early summer chemical treatment, the operation of the Fox Lake Dam to pass up to 100 cubic feet a second can be continued after the present natural runoff decreases, and the impoundment can be drawn 3 feet before spring breakup and so

held until the chemical treatment can be effected. Impoundments downstream that will be affected are at the city of Beaver Dam and the village of Lowell, neither of which are operated for power production. The recent operation of the Fox Lake Dam to pass the natural high flow occurrence has been at a time when ice cover is forming on Beaver Dam Lake and continuance of discharge for the drawdown should not cause overflow.

8. Following the chemical treatment, the Fox Lake Dam will have to be operated to withhold flow up to 3 weeks, which should not materially affect downstream levels because of inflow into Beaver Dam Lake from the drainage area below the Fox Lake Dam.

9. The operation of the Fox Lake Dam to lower the Fox Lake impoundment 3 feet and to hold it at the lowered level for chemical treatment will be in the interest of public rights in said impoundment and will protect life, health, and property.

Conclusion of Law

THE COMMISSION CONCLUDES:

That it has authority under section 31.02, Statutes, and in accordance with the foregoing findings of fact, to authorize the owners and operators of the Fox Lake Dam to lower the impoundment 3 feet and to hold it at such lowered level until chemical treatment can be effected.

Order

THE COMMISSION THEREFORE ORDERS:

1. That the city of Fox Lake and the town of Fox Lake, owners of the Fox Lake Dam, be and they hereby are authorized

to commence lowering the Fox Lake impoundment, by the discharge of not more than 125 cubic feet a second, to a level 3 feet below the established level, and to hold the impoundment at such lower level until chemical treatment can be effected, subject to the condition that following conclusion of the chemical treatment, the dam be operated to restore the pool as soon as possible.

2. Except as provided in finding No. 8 of the findings of fact attached hereto, the dam shall at all times be operated to pass 25% of the natural low flow as required by section 31.34, Statutes.

Dated at Madison, Wisconsin, DEC 10 1966

By the Commission.

John A. ...
Acting Secretary

Dam Sequence No 250



Formal Action



Year: 1987



ORDER NUMBER 3-SD-87-902

FACT FINDING

	DATE OF INSPECTION 11-18-87
NAME OF DAM Fox Lake	NAME OF OWNER City of Fox Lake and Town of Fox Lake
DNR FIELD FILE NUMBER 14.3	NAME OF AGENT Wayne Ruenger (Mayor) Ed Johnson (Chairman)
NAME OF STREAM Mill Creek	STREET OR ROUTE 105 N. College Avenue 1124 Blackhawk Tr.
IMPOUNDMENT Fox Lake	CITY, STATE, ZIP CODE Fox Lake, WI 53933 Fox Lake, WI 53933
COUNTY Dodge	TELEPHONE NUMBER (INCLUDE AREA CODE) (414) 928-2280 (414) 928-3193

INSPECTION PARTY

OWNER/AGENT None	DNR INSPECTOR Harland Steinhorst, John Gozdziwski
INTERESTED CITIZENS/GROUPS None	FERC None

NAVIGATION AND DAM FACTS

1. IN VICINITY OF DAM	
A. UPSTREAM Boating, fishing	B. DOWNSTREAM Fishing, wading

2. APPARENT EXISTING USE		
A. UPSTREAM Boating, fishing	B. DOWNSTREAM Fishing, wading	C. PORTAGE Not apparent

3. HAZARDS (USE APPROPRIATE ITEMS UNDER D 1-11 OR OTHERS.)	
A. UPSTREAM 4	D. 1. DANGEROUS CURRENTS 2. POTENTIAL FOR HIGH WAVE ENERGY 3. GATED SPILLWAYS 4. OPEN SPILLWAYS 5. STEEP SLOPES 6. UNFENCED DROPOFFS 7. ELECTRICAL TRANSMISSION GEAR 8. DANGEROUS TAKEOUT CONDITIONS 9. POWER HOUSE INTAKE/OUTLET 10. AUTOMATIC GATES 11. BARBED WIRE HAZARDS
B. DOWNSTREAM 4	
C. PORTAGE 5-downstream	

SIGNS, DEVICES AND PORTAGE FACILITIES

1. EXISTING
A. SIGNS AND LOCATIONS None
B. DEVICES AND LOCATIONS (INCL. LIGHTS, HORNS, SIRENS, ETC.) None
C. PORTAGE FEATURES AND LOCATIONS City owned property along both downstream banks.

CONCLUSIONS OF LAW

The Department has authority pursuant to ss. 31.02 and 31.18, Wis. Stats., and NR 330, Wis. Admin. Code, to require dam owners to install and maintain signs and devices necessary to provide adequate warning and safety for boaters and to prescribe portage requirements for appropriate dams. The order contained hereinafter is necessary and proper in accordance with the foregoing findings of fact to provide adequate warning and safety pursuant to ss. 31.02 and 31.18, Wis. Stats., and NR 330, Wis. Admin. Code.

ORDER

2. REQUIRED (IF EXISTING FEATURES ARE ADEQUATE, WRITE "SAME")

A. SIGNS LOCATIONS

Diamond "DAM" sign on upstream side of railing over dam spillway. Rectangular "TAKE OUT" sign on left (east) bank approximately 15' -20' west of light pole.

B. DEVICES AND LOCATIONS (INCL. LIGHTS, HORNS, SIRENS, ETC.)

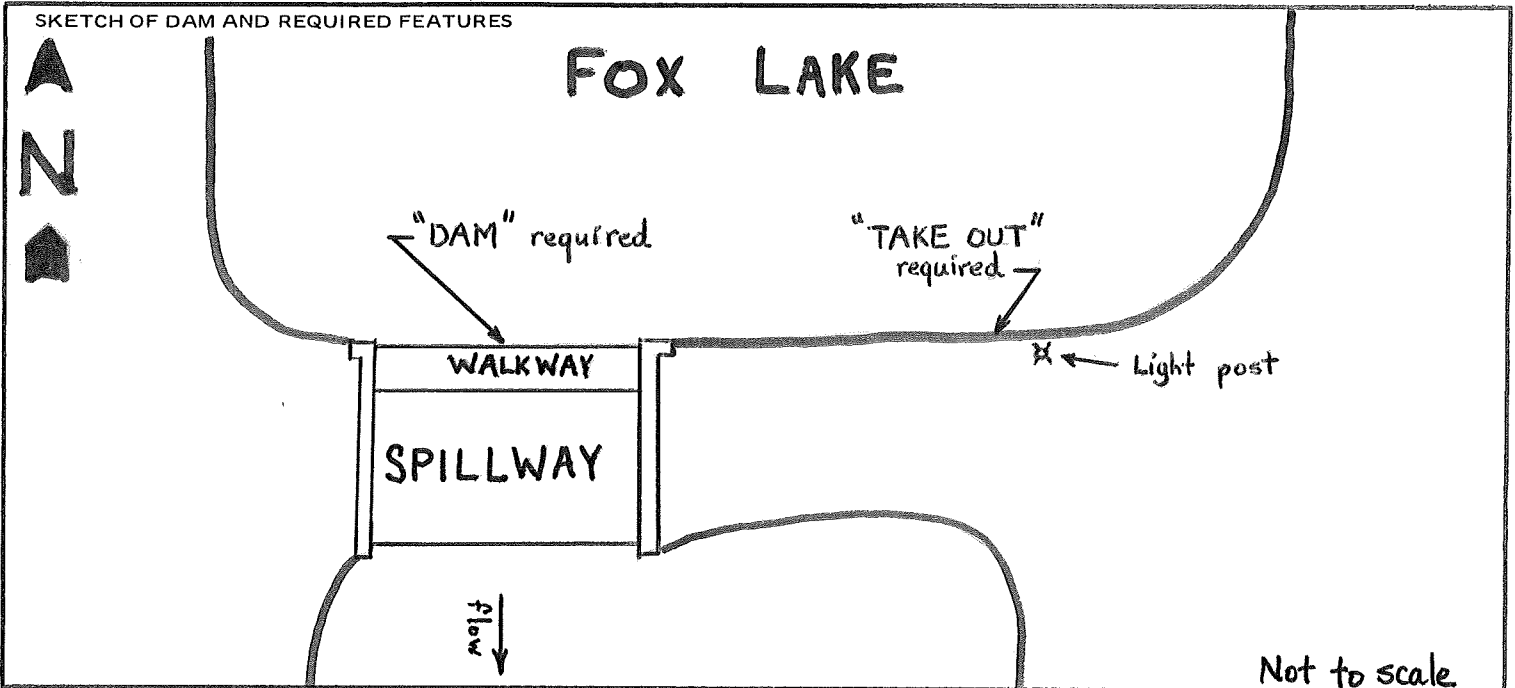
None

C. PORTAGE FEATURES AND LOCATIONS

Take out along left (east) bank. Put in immediately downstream of dam on left bank.

INSTALLATION COMPLETION DATE

4-1-88 as per DNR dam inspection letter dated 9-25-87.



State of Wisconsin
Department of Natural Resources
For the Secretary

Inspected By
Signature

By John Gozdzialski Date 12-2-87

John Gozdzialski Date 12-2-87

Signs, devices and portage features for the _____ Dams were inspected and found

to conform with Wis. Administrative Code NR 330.04 and 330.05 on: _____

INSPECTED BY — SIGNATURE

DATE

NOTIFICATION OF APPEAL RIGHTS:

If you believe that you have a right to challenge this decision, you should know that Wisconsin Statutes and Administrative Code establish time periods within which requests to review Department decisions must be filed. These time periods are as follows: for judicial review of a decision pursuant to ss. 227.15 and 227.16, Wis. Stats., you have 30 days after service of the decision to file your petition for review. Some Wisconsin Administrative Codes sections provide for review of the Department decision pursuant to ss. 227.064, Wis. Stats. Review should generally be sought within 30 days of the service of the decision.

The respondent in an action for judicial review is the Department of Natural Resources. You may wish to seek legal counsel to determine if any of the above time periods apply to this decision. The notice is provided pursuant to s. 227.11(2), Wis. Stats.

Dam Sequence No 250



Formal Action



Year: 1997





State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
Ruthe E. Badger, District Director

Horicon Area Headquarters
N7725 Highway 28
Horicon, WI 53032
TELEPHONE 414-387-7878
FAX 414-387-7888

February 4, 1997

3500

3-SD-97-ur2002

Town Of Fox Lake
W10543 County Road F
Fox Lake, WI 53933

Re: Temporary Drawdown of Fox Lake, Dodge County.

Dear Sir :

The request of Town Of Fox Lake for authority to draw down Fox Lake in in the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 35, Township 13 North, Range 13 East, Dodge County for the purpose of drying and compacting lake sediments while rejuvenating aquatic and emergent vegetation in the lake has been reviewed by the Department.

It has been determined that the drawdown will not adversely affect fish and aquatic habitat and will be consistent with the public interest in the navigable waters involved, provided that appropriate conditions are attached to the approval. The Department has evaluated the project in light of the Wisconsin Environmental Policy Act (Section 1.11, Wisconsin Statutes) and has concluded that the grant or denial of the authority requested would not be a major state action significantly affecting the quality of the human environment.

The request of Town Of Fox Lake for authority to draw down Fox Lake in Dodge County, is hereby approved under Section 31.02(1) and (2), Wisconsin Statutes, subject to the following conditions:

1. Drawdown shall commence no sooner than February 20, 1997 and a level of 89.25 feet, PSC Datum as measured at the Fox Lake dam, shall be restored by November 1, 1997.
2. The flowage shall be drawn down the minimum that is necessary. The maximum drawdown shall be up to 4.0 feet below the normal full pool elevation.
3. Drawdown shall take place at a slow enough rate to prevent structural damage to the dam, fish entrapment, or damage to property downstream. Drawdown rate shall not exceed two inches per day.
4. Section 31.34, Wisconsin Statutes, requires that a minimum flow be maintained below the dam at all times, including during refilling of the flowage. A minimum flow of 3.75 cfs shall be maintained below Fox Lake if possible under normal gravity flow conditions. If water levels fall below the sill of the dam due to drought, this flow will be resumed as soon as water levels rise.

5. Drawdown and refilling shall be coordinated with the owners of the dams downstream.

It is strongly recommended that the public be informed through the appropriate news media of the purpose and duration of the drawdown. Further coordination with this Department should be made with Project Coordinator Jim Congdon at 414-387-7872.

If you believe that you have a right to challenge this decision, you should know that Wisconsin Statutes and Administrative Rules establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to Sections 227.52 and 227.53, Wisconsin Statutes, you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to Section 227.42, Wisconsin Statutes, you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

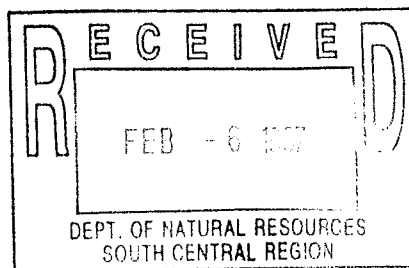
This notice is provided pursuant to Section 227.48(2), Wisconsin Statutes. This decision was mailed on the date indicated on the mailing list.

Sincerely,



Andy Nelson
Water Management Specialist

cc: City of Fox Lake
Fox Lake PRD
Jim Congdon
Susan Josheff, SCR



Dam Sequence No 250



Formal Action

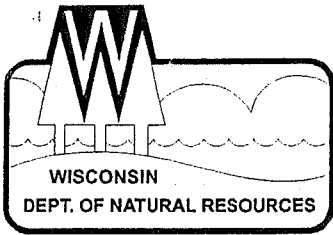


Year: 1999



14.03

ETD



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
Ruthe E. Badger, Regional Director

South Central Region Headquarters
3911 Fish Hatchery Road
Fitchburg, Wisconsin 53711-5397
Telephone 608-275-3266
FAX 608-275-3338
TDD 608-275-3231

April 13, 1999

Scott Zimmerman
Terra Engineering & Construction Corp.
2201 Vondron Road
Madison, WI 53718-6795

Ed Benter
Town of Fox Lake
W10543 CTH F
Fox Lake, WI 53933

Subject: Plan Approval for the Cofferdam and Water Diversion for the Reconstruction of the
Fox Lake Dam , Mill Creek, Dodge Co. FF#14.03, Approval 3-SD-99-2021ur

FINDINGS OF FACT

1. The Department of Natural Resources has examined the plans and specifications, dated April 5, 1999, for the cofferdam and water diversion prepared by Terra Engineering & Construction Corporation. The cofferdam and diversion are necessary for the reconstruction of the Fox Lake Dam on Mill Creek in the NE ¼ of the NW ¼, Section 35, T13N, R13E, Town of Fox Lake, Dodge County. Plans for the Fox Lake Dam reconstruction has already been approved.
2. The upstream cofferdam will be made of sheet piling and the downstream cofferdam will be made of soil. The control structure for the diversion will be 2 sets of 6-foot stoplogs positioned in H-piles. The diversion channel will be lined with filter fabric and anchored. Riprap will be placed downstream of the control structure for energy dissipation.

CONCLUSIONS OF LAW

1. The review has been conducted in accordance with Chapter 31.12, Wisconsin Statutes, and Chapter NR 333, Wisconsin Administrative Code.
2. The Department has determined that the project complies with Section 1.11, Wisconsin Statutes, and Section NR 1.95, Wisconsin Administrative Code.

APPROVAL

1. The plans are hereby approved in accordance with Chapter 31, Statutes.
2. The approved plans are not transferable, and shall become null and void unless the repairs are completed within 2 years from the date the plans were approved.

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Through Excellent Customer Service



CONDITIONS OF APPROVAL

1. You must complete this project according to the plans you have submitted except where the following conditions require modification.
2. The owner is responsible for obtaining any permit or approval required for your project by municipal, town or county zoning ordinances or by the U.S. Corps of Engineers before starting your project.
3. The Terra Engineering and Construction Corp. representative is to notify Dan Hunt at our Horicon Office 3 days prior to starting construction and 3 days prior to completion of the project. Dan's phone number is 920-387-7878 and his e-mail is HUNTD@DNR.STATE.WI.US.
4. Erosion control measures must be used to reduce and/or eliminate the release of soil and rock into Mill Creek.
5. The top of the stoplogs shall be set at an elevation to maintain the water level of Fox Lake at 892.45. This means that the stoplogs may need to be set at a lower elevation so that the water flowing over the log will maintain the lake at 892.45. If Fox Lake's water level is above 892.45, the stoplogs must be removed to lower the lake to 892.45.
6. Terra Engineering and Construction Corp. will assign an operator for the control structure. The operator's name and phone number will be provided to the Town of Fox Lake's chairman, the City of Fox Lake director of public works and Dan Hunt at 608-387-7878.
7. A staff gage shall be installed near the cofferdam structure to help the control structure operator recognize the changes in water levels.
8. The cofferdams and diversion structure must be completely removed at the completion of the dam reconstruction project.

NOTICE OF APPEAL RIGHTS

If you believe that you have the right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decision must be filed.

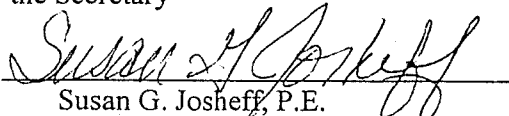
To request a contested case hearing pursuant to s. 227.42, Wis. Stats., you have 30 days after the decision is mailed or otherwise served by the Department of Natural Resources.

This notice is provided pursuant to s. 227.48(2), Wis. Stats.,

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

For the Secretary

By



Susan G. Josheff, P.E.
Rock River Basin Engineer

enclosed – approved plan and spec.

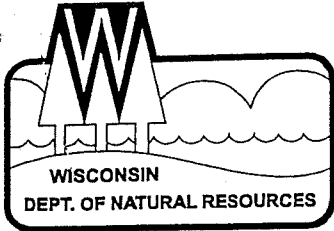
cc: Jim Congdon/Dan Hunt – Horicon

Dean Steines - Ayres Associates

Meg Galloway - WT/6

14.3

APC
HVT



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

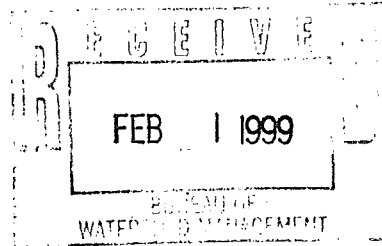
Tommy G. Thompson, Governor
George E. Meyer, Secretary
Ruthe E. Badger, Regional Director

South Central Region Headquarters
3911 Fish Hatchery Road
Fitchburg, Wisconsin 53711-5397
Telephone 608-275-3266
FAX 608-275-3338
TDD 608-275-3231

January 27, 1999

Ed Benter
Town of Fox Lake
W10543 CTH F
Fox Lake, WI 53933

Mayor Wayne Ruenger
City of Fox Lake
105 College Ave.
Fox Lake, WI 53933



Subject: Plan Approval for the Fox Lake Dam, Mill Creek, Dodge Co. FF#14.03, Approval 3-SD-1999-ur2009

Gentlemen:

FINDINGS OF FACT

1. The Department of Natural Resources has examined the plans and specifications for the reconstruction of the Fox Lake Dam dated September 30, 1998 and supporting documentation dated September 1998, prepared by Ayres Associates, on Mill Creek in the NE ¼ of the NW ¼, Section 35, T13N, R13E, Town of Fox Lake, Dodge County.
2. The Fox Lake Dam was determined to be a high hazard structure in the department's June 23, 1999 assignment of preliminary hazard rating. The high hazard rating was based on a dam failure analysis and the lack of appropriate zoning downstream of the dam.
3. Hydrologic and hydraulic calculations submitted with the Fox Lake Dam reconstruction plans and specifications corrected the earlier submitted hydrology and hydraulics. The revised calculations show that the dam is submerged by the backwater of County Trunk Highway P located immediately downstream of the dam. The dam is submerged at flows less than the 100 year flow.
4. The revised dam hazard classification for the Fox Lake Dam is low hazard. If County Truck Highway P is modified in the future, the Fox Lake Dam hazard classification will need to be recalculated and possibly changed. A change in hazard classification may require the Fox Lake Dam's required spillway capacity to increase.

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Recycled
Paper

5. The Fox Lake Dam as designed will pass the flow at submergence.

CONCLUSIONS OF LAW

1. The review has been conducted in accordance with Chapter 31.12, Wisconsin Statutes, and Chapter NR 333, Wisconsin Administrative Code.
2. The Department has determined that the project complies with Section 1.11, Wisconsin Statutes, and Section NR 1.95, Wisconsin Administrative Code.

APPROVAL

1. The plans are hereby approved in accordance with Chapter 31, Statutes.
2. The approved plans are not transferable, and shall become null and void unless the repairs are completed within 2 years from the date the plans were approved.

CONDITIONS OF APPROVAL

1. You must complete this project according to the plans you have submitted. If you wish to make changes in the project you must submit your new plans to the department. The department must then approve the changes in writing before you start or continue your project. This approval expires October 1, 2001.
2. The owner is responsible for obtaining any permit or approval required for your project by municipal, town or county zoning ordinances or by the U.S. Corps of Engineers before starting your project.
3. The cofferdam plans, water diversion plan, and erosion control plan shall be sent to Dan Hunt at our Horicon Office, N7725 Highway 28, Horicon 53032 for approval prior to implementation. The cofferdam must be designed and stamped by a professional engineer registered in the State of Wisconsin. The cofferdam plan approval will require a 30-day notice. Dan Hunt can be contacted at 920/387-7878.
4. The removal of vegetative cover and exposure of bare ground for access to the site shall be restricted to the minimum amount necessary for construction. Areas where soil is exposed must be protected from erosion by seeding and mulching, sodding, diversion of surface runoff, installation of straw bales or silt screens, construction of settling basins or similar methods within 5 days after removal of the original ground cover.
5. On site inspection by a professional engineer registered in the State of Wisconsin shall be performed periodically and during the critical stages of construction. Critical stages are considered anytime that the work performed will be covered and cannot be inspected at a later time (i.e. footings being covered with soil or reinforcing steel with concrete). Monthly inspection reports including photographs or video tape shall be submitted by the inspecting registered engineer.
6. The owner is to notify Dan Hunt at our Horicon Office 5 days prior to starting construction and 5 days prior to completion of the project.

7. Section 31.12(4), Wis. Statutes, requires a verified statement to be filed with the Department within 10 days after completion of the repairs to the dam, stating that it was constructed in accordance with the plans and specifications approved by the Department.
8. An Emergency Action Plan for a dam failure and the Inspection, Operation and Maintenance Plan are required upon completion of the project. Please submit 2 copies of the completed plans to me.
9. The project bid you choose to accept must be sent to me at this office and approved prior to the initiation of any of the work. My fax number is 608/275-3338. The Department will issue a Grant Award Notice upon approval of the bid.
10. A benchmark cap, tied into the survey upon completion of the dam, is to be placed in concrete in an accessible area. The benchmark cap will be supplied by the Department of Natural Resources.
11. Construction work performed prior to your receipt of the Grant Award Notice will not be eligible for reimbursement under the grant program.
12. Details of the grant process and conditions will be included in the Grant Award Notice.

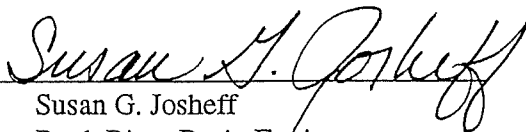
NOTICE OF APPEAL RIGHTS

If you believe that you have the right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decision must be filed.

To request a contested case hearing pursuant to s. 227.42, Wis. Stats., you have 30 days after the decision is mailed or otherwise served by the Department of Natural Resources.

This notice is provided pursuant to s. 227.48(2), Wis. Stats.,

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES
For the Secretary

By 
Susan G. Josheff
Rock River Basin Engineer

enclosed - cover of spec. stamped approved, portion of plan title page stamped approved

cc: Jim Congdon/Dan Hunt - Horicon
Dean Steines - Ayres Associates
~~Meg Galloway - W.T/O~~

Dam Sequence No 00250



Formal Action



Year:

2012



State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



January 11, 2012

William Petracek
City of Fox Lake
248 East State Street
P.O. Box 105
Fox Lake, WI 53933

Edwin Benter
Town of Fox Lake
W10543 CTH F
Fox Lake, WI 53933

Subject: Dam Failure Analysis Approval and Hazard Rating Confirmation, Fox Lake Dam, Field File 14.03, Key Sequence #250, Dodge County.

Dear Mr. Petracek and Mr. Benter:

We are sending you this approval of the updated dam failure analysis, submitted on your behalf by MSA Professional Services, dated December 8, 2011, and requiring that you confirm the hazard rating for the Fox Lake Dam. The hydrologic and hydraulic analyses, including the dam failure analysis are hereby approved, and there are no residences within the dam failure floodplain (hydraulic shadow) downstream of the dam. We are requiring that you confirm that the current zoning in place below the dam is sufficient to incorporate the entire dam hydraulic shadow within 60 days from the date this document was mailed. If it is not adequate, then you are required to adopt the updated dam failure analysis into your floodplain zoning ordinance. If necessary, Dodge County will also need to adopt the analysis into their floodplain zoning ordinance as well. The hazard rating is hereby reassigned as Low Hazard.

If you have questions about this document, please give me a call at 608-266-8033. If you have other questions pertaining to the operation and maintenance of your dam please contact Rob Davis at 608-275-3316 or email at Robert.Davis@wi.gov.

Thank you for your continued cooperation.

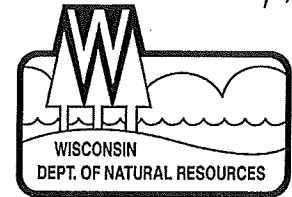
Sincerely,

William D. Sturtevant, P.E.
State Dam Safety Engineer
Bureau of Watershed Management
William.Sturtevant@wi.gov

cc. Rob Davis, P.E. - Fitchburg
Gary Heinrichs - WT/3
Konny Margovsky, P.E. - WT/3
Uriah Monday, P.E. - MSA Madison

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
3911 Fish Hatchery Road
Fitchburg WI 53711-5397

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



RECEIVED

April 26, 2012

Mr. William Petracek, City Administrator
City of Fox Lake
248 East State Street
P.O. Box 105
Fox Lake, WI 53933

APR 27 2012
Bureau of Watershed Mgmt

Subject: Fox Lake Dam, Field File # 14.03, Old Mill Creek, City of Fox Lake, Dodge County. Dam Failure Analysis Floodplain Mapping. Ordinance Adoption Notice.

Dear Mr. Petracek:

In January 2012 the Department of Natural Resources (DNR) approved the revised dam failure analysis for the for the Fox Lake Dam, located across Old Mill Creek in the NE¼ of the NW¼ of Section 35, Township 13 North, Range 13 East, City of Fox Lake, Dodge County. The dam failure analysis was revised due to the replacement of the Highway P culverts downstream of the dam. Based on the results of the approved study, we are requiring that you adopt the updated dam failure analysis into your floodplain zoning ordinance. This will be necessary for the hazard rating of the Fox Lake Dam to remain low hazard.

The review of the submitted materials indicates that the areas of potential dam failure inundation (hydraulic shadow) are adequately reflected on the map with additional information on stationing, maximum water surface elevation, maximum velocities, maximum flow, etc. provided in the HEC-RAS summary table. In order to minimize the risk of potential loss of life and property damage in case of dam failure, the entire inundation area should designated floodway.

Under the requirements of chapter 87.30 Wisconsin Statutes and chapter NR 116.05, Wisconsin Administrative Code the enclosed materials, including:

- a) Summary table showing maximum water surface elevations in Old Mill Creek
- b) HEC-RAS output data
- c) Floodway map
- d) Study profiles

need to be formally adopted into your floodplain zoning ordinance within six months from the date of this document. Uriah Monday has offered GIS files to the City if this would be beneficial. I can put you in contact with Uriah if necessary.


To assist you in the adoption process, refer to chapter NR 116 Wisconsin Administrative Code and the procedures outlined in the Floodplain/Shoreland guidebook. Please pay particular attention to the Class 2 notice requirements for public hearings. The second publication must be at least one week before the hearing. A certified copy of the ordinance amendment adopting the study along with evidence of the Class 2 public hearing notice must be sent to this office for approval.

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with section NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with section NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing does not extend the 30 day period for filing a petition for judicial review.

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES
For the Secretary

By  _____
Robert R. Davis, P.E.
Water Management Engineer
South District

Attachments

cc: Bill Sturtevant, P.E. - WT/3 ✓
Edwin Benter - Town of Fox Lake (via e-mail - w/o attachments)
Uriah Monday, P.E. - MSA (via e-mail - w/o attachments)

Dam Sequence No 00250



Formal Action



Year: 2014



14.03

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
3911 Fish Hatchery Road
Fitchburg WI 53711-5397

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



November 13, 2014

Town of Fox Lake
Attn: Mr. Mason Zantow, Town Clerk
W10543 County Highway F
Fox Lake, WI 53933

MZS
HW

RECEIVED

NOV 17 2014

City of Fox Lake
Attn: Mr. Gary Rogers, City Administrator
248 East State Street
P.O. Box 105
Fox Lake, WI 53933

WT/3 - WY/3 - OGL/3

Subject: Fox Lake Dam, Field File #14.03, Dodge County, Informal Plan Approval for Riprap Repair

Dear Mr. Zantow and Mr. Rogers:

We have reviewed the sketch submitted for the proposed riprap repair at the Fox Lake Dam. The riprap repair will be downstream of the spillway and will remove the existing heavy rip-rap and replace it with extra heavy rip-rap. The proposal is approved under Chapter 31, Wis. Stats. with this informal approval as maintenance to the existing riprap by improving it so that it is less likely to be pushed downstream. Please send me a picture of the finished project.

If you have questions concerning this document please feel free to contact me.

Sincerely,

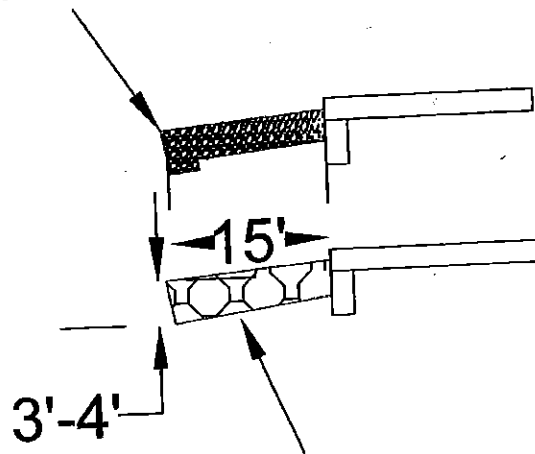
Robert R. Davis, P.E.
Water Management Engineer
Southern District
Robert.Davis@Wisconsin.gov
608-275-3316

cc: Dan Hunt - WMS (via email)
✓ Bill Sturtevant, P.E. - WT/3
Dale Paul - Town of Fox Lake, Supervisor 4 (via email)

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Water Division Customer Service Survey
<https://www.surveymonkey.com/s/WDNRWater>

Town of Fox Lake Fox Lake Dam Rip-Rap

Remove Existing Heavy Rip-Rap & Fabric



Replace With New Extra Heavy Rip-Rap(400-700Lbs.)
And Type HR Fabric